ABSTRACT

Antidiabetic Activity of Diterpene Lactone Fraction of "Sambiloto" (*Andrographis paniculata* Nees.) on Mice (*Mus musculus*) Induced by Alloxan

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The purpose of this study is to determine antidiabetic activity of Diterpene Lactone Fraction of "Sambiloto" (*Andrographis paniculata* Nees.) on mice induced by Alloxan. Antidiabetic was induced experimentally by a single intraperitoneal administration of 3,8 mg/20 g body weight of Alloxan-monohydrat in each male mice. Three days after Alloxan administration, blood glucose level was measured using a glucometer. Mice with blood glucose levels above 200 mg/dL were considered diabetic and were used in this study. Then the mice were randomly divided into five experimental groups of six mice each. First group as positive control (Glibenclamide 0,06 mg/20 g body weight). Second group as negative control (CMC-Na 0.5%). Samples were given by oral route at three dosage levels (7,4 mg, 14,9 mg, and 22,3 mg/20 g body weight). After treatment finished, blood sampling was done by sterilizing the tail with alcohol and then nipping the tail at the start of the experiment and this was repeated after 2^{nd}, 4^{th}, 6^{th}, and 24^{th} h.

Results were expressed as Mean±SEM of the blood glucose levels per number of animals used in every study point. One-way ANOVA and post-ANOVA (LSD) test were used to compare the means in each group. In this study, based on the results of decline in blood glucose levels, it is concluded that Diterpene Lactone Fraction of "Sambiloto" (*Andrographis paniculata* Nees.) has antidiabetic activity. The most effective dose was at 14,87 mg/20 g body weight of mice.

Keyword : *Andrographis paniculata* Nees., Diterpene Lactone Fraction, Antidiabetic Activity, *in vivo*, Alloxan